UNIVERSITI TEKNOLOGI MARA

JOMRIDE: DEVELOPING A MOBILE APPLICATION FOR FINDING CYCLING COMPANION

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In the name of Allah, the Most Gracious and the Most Merciful

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ABSTRACT

Cycling has become one of the most popular activities among people. Cycling activity is much more fun and safer when riding with more cyclists whether for leisure or competing against one another. However, finding their cycling companion can be very challenging for some cyclists because some people have different cycling schedules. Besides that, there is also no proper platform for cyclists to promote cycling activities. Thus, the aim of this project is to develop a mobile application for the cyclist community to find cycling companion. User can view nearby cycling activity, choose which cycling activity they want to join and create a new cycling activity themselves. The objectives for this project are to identify user requirements, to design and to develop JomRide cycling companion finder mobile application. This project uses the android platform and the mobile application was developed using Android Studio. The target user of this project would be the people who are cyclist enthusiast or people that have an interest in cycling activity. Methodology that had been used for this project is Mobile Application Development Life Cycle (MADLC) Model. This project however was developed up until testing phase only. The technique that was used in this project is geolocation which is operated by Global Positioning System (GPS) and returns a location of the user with a certain accuracy radius. The location of cycling activities which is within the radius of the user's devices can be displayed in the JomRide mobile application. JomRide can benefit the cyclist community greatly as this application can serve as a platform for them to interact with each other in finding cycling companion. For future recommendation, this application can include a notification feature to alert the user when other users join their activity. In conclusion, JomRide mobile application can help the cyclist to find nearby cycling activity that they can join easily.

Keywords: Cycling, Companion Finder, Mobile Application, GPS, MADLC Model

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CHAPTER 1

INTRODUCTION

An outline of this project is given in this section. This chapter includes background information, problem statements, project aims, objectives, scope and project significance.

1.1   Project Background

Cycling is commonly viewed as a very efficient and effective means of transportation and sports (Forester, 2012). Cycling has become popular for a variety of reasons. According to United Nations Environment Programme (2019), cycling helps to reduce the risk of diabetes, some forms of cancer, cardiovascular diseases and depression. The Transport Research Board's 92nd Annual Meeting (2013) that was held in Washington, D.C also reported that people who cycle tend to be more satisfied, less stressed, more relaxed and experience greater freedom compared to people who drive their car.

Group riding for cyclists are common in road cycling, as they are forming a group for fun or training (Schwering, Seuter, Lösing & Bauer, 2016). It is an effective way to become a motivated cyclist by finding a good group ride or having a regular training partner. Cycling with their partner and friends make cyclist enjoy the rides more as they can expand their social network while cycling (Rissel, Passmore & Mason, 2013). Finding a cycling companion for a ride can improve the cyclist's safety, increase cycling motivation, share ride experience, and enjoy some friendly competition. Besides personal ride, cyclist also tend to join any bicycle event that is organized by an organization which is usually participated by many cyclists.